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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,474	02/27/2004	Kenneth Avicola		8555

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EXAMINER
MALLARI, PATRICIA C
ART UNIT
PAPER NUMBER

3735

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/789,474	Applicant(s) AVICOLA ET AL.	
	Examiner Patricia C. Mallari	Art Unit 3735	

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a non-final Office action. New grounds of rejection have been presented which were not necessitated by the applicants' amendments to the claims.

Claim Objections

Claim 8 is objected to because of the following informalities:

On lines 1-2 of claim 8, "at least one visible light emitter" should be replaced with "at least two visible light emitters". Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The skin, the earlobe, or any body portion, is non-statutory subject matter and cannot positively be claimed. To overcome these rejections, the following changes should be made:

On line 1 of claim 6, replace "is attached to skin" with "is adapted to be attached to skin";

On lines 1-2 of claim 16, replace "positioned on the inside of an earlobe and connected through an earlobe" with "adapted to be positioned on the inside of an earlobe and adapted to be connected through an earlobe".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,572,636 to Hagen et al. in view of US Patent No. 4,653,498 to New, Jr. et al. Hagen teaches flashing jewelry (col. 1, lines 43-51 of Hagen) comprising an infrared emitter positioned to emit infrared light into tissue of a wearer and an infrared detector positioned to detect infrared light emanating from the tissue (col. 4, lines 36- col. 5, line 3 of Hagen). A power source for the emitter and detector is included 42 (col. 6, lines 30-35 6 of Hagen). An electrical circuit analyzes electrical signals from the detector to detect each beat of the wearer's heart (col. 4, lines 43-56; col. 4, line 64=col. 5, line 3 of Hagen). At least two visible light emitters 58 are also provide (col. 5, line 63- col. 6, line 29 of Hagen). A first trigger circuit initiates electrical pulses to cause one of the light emitters to flash once for each heartbeat (col. 8, lines 50-56 of Hagen). Hagen lacks a pulse rate calculating means for calculating the wearer's pulse rate and a second trigger circuit for initiating pulses to cause a second of the visible light emitters to flash once for each heart beat when the pulse rate exceeds a first predetermined rate.

However, New, Jr. teaches a pulse rate monitor configured to detect each beat of a wearer's heart (col. 5, line 46-col. 6, line 17 of New, Jr.) having at least two visible light emitters, wherein at least one of the light emitters flashes once for each heartbeat (col. 11, lines 6-10 of New, Jr.) The monitor further comprises a pulse rate calculation means for calculating the wearer's pulse rate and a second trigger circuit for initiating pulses to cause a second of the visible light emitter to flash when the pulse rate exceeds a first predetermined rate (col. 11, lines 22-62 of New, Jr.) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the monitor of New, Jr. with the jewelry of Hagen, in order to facilitate care of a wearer by indicating to a caretaker appropriate alarms (col. 3, lines 13-38; col. 11, lines 42-62 of New, Jr.)

Hagen, as modified, teaches the second visible light emitter flashing, but is silent as to whether or not the rate of flashing corresponds to that of the detected heart beat. Additionally, each of Hagen and New, Jr. discloses a plurality of visible emitters flashing at the rate of the heartbeat. The applicants have not disclosed that the flashing of the second visible light emitter at the rate of the detected heartbeat solves any stated problem or is for any particular purpose. Moreover, one of ordinary skill in the art would have expected the applicants' invention to work equally well with the second emitter flashing at any reasonable rate. Accordingly, the use of the second, or any further, visible emitter flashing once for each heart beat is deemed to be mere design consideration which fails to patentably distinguish over the prior art of Hagen, as modified.

Regarding claim 2, a third trigger circuit initiates pulses to cause a third visible light emitter to flash when the pulse rate exceeds a second predetermined rate (col. 11, lines 43-62 of New, Jr.)

Regarding claim 6, the jewelry is attached to the skin of the wearer by a patch (col. 3, lines 37-51 of Hagen).

Regarding claim 8, the at least one visible light emitter is three visible light emitters (col. 6, lines 1-29 of Hagen; col. 11, lines 6-10 and lines 59-62 and fig. 1 of New, Jr.)

Claims 3, 9, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, in view of New, Jr. as applied to claims 1, 2, 6, and 8 above, and further in view of US Patent No. 3,978,849 to Geneen. Hagen, as modified, teaches using three visible light emitters but is silent as to the color of the emitters. However, Geneen teaches a pulse monitor wherein three visible light emitters are used for each level of pulse rate (col. 4, lines 29-65; col. 5, lines 32-55 of Geneen). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use different color light emitters to indicate the different pulse rate levels in the jewelry of Hagen, as modified, since Hagen teaches using light emitters to indicate different pulse rate levels, and Geneen teaches using three different colored light emitters as appropriate such light emitters.

Hagen, as modified, teaches the light emitters being yellow, red, and green, wherein the green light is used for a normal pulse rate, yellow light is used when a first

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threshold is exceeded, and red light is used when a second threshold is exceeded (col. 4, lines 29-65; col. 5, lines 32-56 of Geneen). Hagen, as modified, lacks using a blue emitter instead of a yellow emitter or using a red emitter to flash with each heart beat, green when a first threshold is exceeded, and blue when a second is exceeded. The applicants have not disclosed that the use of the particular colored light emitters solves any stated problem or is for any particular purpose. Moreover, one of ordinary skill in the art would have expected the applicants' invention to work equally well with any combination of different visible colored light emitters. Accordingly, the use of a blue emitter or the particular use of each of the red, green, and blue emitters to designate the pulse rate, or exceeding the first or second threshold is deemed to be mere design consideration which fails to patentably distinguish over the prior art of Hagen, as modified.

Regarding claim 14, a transmitter transmit a signal to an audio device to initiate a sound when one of the predetermined rates is exceeded (col. 11, line 63-col. 12, line 5 of New, Jr.)

Claim 11 is rejected under 35 U.S.C 103(a) as being unpatentable over Hagen, in view of New, Jr. and Geneen, as applied to claims 3, 9, 10, and 14 above. Hagen, as modified teaches that the alarm limits may be set to any desired level (col. 12, lines 42-62 of New, Jr.) but is silent as to the particular levels. However, Geneen teaches that appropriate alarm limits for alerting a wearer or caretaker is at least 115% and at least 130% of the resting heart rate (table 2 of Geneen). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of invention to use the limits set forth in Geneen as those in the jewelry of Hagen, as modified, since Hagen, as modified teaches using alarm limits, and Geneen describes appropriate such limits.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, modified by New, Jr., as applied to claims 1, 6, and 8 above, and further in view of US Patent No. 4,647,217 to Havel. Hagen, as modified, teaches the jewelry as a patch attached to the skin. However, Havel teaches jewelry for indicating the pulse rate to a user, wherein the jewelry may be a ring or an earring (col. 23, lines 4-14 of Havel). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide the jewelry of Hagen, as modified, in the form of a ring or an earring, since all forms of jewelry are shown to be functionally equivalent means of indicating pulse rate.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen in view of New, Jr. as applied to claims 1, 6, and 8 above. Hagen, as modified, teaches patch being of any shape but fails to specifically recite the patch being heart shaped. The applicants have not disclosed that the heart shape of the patch solves any stated problem or is for any particular purpose. Moreover, one of ordinary skill in the art would have expected the applicants' invention to work equally well with the patch being of any reasonable shape. Accordingly, the use of the heart shape of the patch is deemed to

be mere design consideration which fails to patentably distinguish over the prior art of Hagen, as modified.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen in view of New, Jr. as applied to claims 1, 6, and 8 above, and further in view of US Patent No. 6,277,079 to Avicola. Hagen, as modified, is silent as to the type of electric circuit employed. However, Avicola teaches flashing jewelry for displaying a user's pulse rate employing an ASIC circuit (col. 3, lines 55-61 of Avicola). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the circuit of Avicola in the flashing jewelry of Hagen, as modified, since Hagen, as modified, teaches jewelry using an electric circuit, and Avicola describes such an appropriate type of electric circuit.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, modified by New, Jr., as applied to claims 1, 6, and 8 above, and further in view of US Patent No. 5,490,523 to Isaacson et al. Hagen, as modified, teaches an electrical circuit for sensing the pulse rate and driving LEDS but is silent as to the type of circuit. However, Isaacson teaches a device for determining pulse rate wherein a surface mounted circuit is used to determine the pulse and drive the LEDs (col. 3, line 60-col. 4, line 3 of Isaacson et al.) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the circuit of Isaacson as that of Hagen, as

modified, since Hagen teaches an electric circuit, and Isaacson discloses an appropriate such circuit.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen, in view of New, Jr. and Geneen, as applied to claims 3, 9, 10, and 14 above. Hagen, as modified, teaches the sound as being a continuous tone of constant pitch rather than the sound of church bells. However, the applicant has not disclosed that the particular type of sound is used for any particular purpose. Moreover, it appears that the flashing jewelry would perform equally well with any type of sound emitted. Accordingly, the use of church bells as the type of sound emitted is deemed to be a design consideration that fails to patentably distinguish over the prior art of Hagen, as modified.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claim 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The allowability of claim 16 was addressed in the previous Office action filed 7/27/05.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Publication No. 2002/0013535 to Nissila et al. teaches flashing jewelry wherein flashing or different colored LEDs indicate different pulse rate levels.

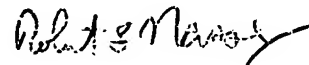
US Patent No. 3,742,937 to Manuel et al. teaches flashing jewelry wherein a visible light emitter flashes once for each heartbeat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia C. Mallari whose telephone number is (571) 272-4729. The examiner can normally be reached on Monday-Friday 10:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patricia Mallari
Patent Examiner
Art Unit 3735


ROBERT L. NASSER
PRIMARY EXAMINER